



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,171	12/21/2000	Marc Thomas Edgar	85CF-00109	2919

7590 08/18/2005

John S. Beulick
Armstrong Teasdale LLP
One Metropolitan Sq., Suite 2600
St. Louis, MO 63102

EXAMINER

ALPERT, JAMES M

ART UNIT	PAPER NUMBER
----------	--------------

3624

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/746,171

Applicant(s)

EDGAR ET AL.

Examiner

James Alpert

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following communication is in response to Applicant's amendment filed on 18 May 2005.

Status of Claims

Claims 1-5,7,9-11,13-15,17,19-21,23-25,27 & 29-30 are currently amended. Claims 6,8,12,16,18,22,26 & 28 are as originally submitted. No claims are cancelled, nor are there any new claims. Claims 1-30 are, therefore, currently pending.

Response to Arguments

Applicant's arguments filed 18 May 2005 4 have been fully considered. Responses are detailed below, however Claims 1-30 remain rejected, and Applicant's request for allowance is respectfully declined.

Response – Claim Rejections - 35 USC §101

Applicant's amendment to the claims overcomes the previously issued §101 rejections, and they are withdrawn.

Response – Claim Rejections - 35 USC §102

Applicant's amendments to the claims necessitate a new ground of rejection as detailed below. Thus the previous rejections, mailed 19 January 2004, under 35 USC §102(e) are withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3624

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al, U.S. Patent #6249775, in view of Thiesson et al, U.S. Patent 36408290.

With regard to Claims 1,11,21, Freeman teaches the method, system, and computer comprising:

segmenting the portfolio of assets into at least two valuation portions;
(Col. 3, lines 11-21)

at least one of fully underwriting each asset individually, and grouping and underwriting a sample of assets included within a first portion of the asset portfolio for computing a value for each asset included within the first portion of the asset portfolio, the valuation computation is performed by the computer;
(Col. 6, lines 12-28, describing underwriting system)

storing in the database asset data including the computed value and descriptive attribute variables for each asset included within the first portion; and
(Col. 7, lines 65 – Col. 8, line 10; Col. 11, lines 31-51; Tables 1-3)

Freeman does not teach the method, system, and computer comprising the following limitations, but Thiesson discloses:

using the computer to statistically infer a value for each asset included within a second portion of the asset portfolio by performing a correlation process between descriptive attribute variables for assets included within the second portion and asset data stored in the database, the correlation process including the steps of:

identifying at least two descriptive attribute variables for assets included within the second portion of in the portfolio for correlating with descriptive attribute variables stored in the database for assets included within the first portion of the portfolio; (Col. 4, lines 45-67; Col. 5)

calculating a value of a response variable for assets included within the second portion based on the asset data assigned to assets included within the first portion having descriptive attribute variables that correlate with the identified descriptive attribute variables (Col. 7, line 50 – Col. 8, line 6)

grouping the assets included within the second portion according to the calculated value of the response variable; and (Col. 35 lines 33-49)

It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to combine the teachings of Freeman, relating to clustering within asset groups for statistical measuring, with the teachings of Thiesson relating to correlating measured values of response variables with samples of a second group to extrapolate the statistics on to the group as a whole. The motivation for such a combination is to apply reliable statistical analysis in a way that allows macro-level decisions be applied from a process that occurs on a micro-level to an individual statistic.

Freeman teaches the method, system, and computer comprising:
displaying the groupings. (Col. 11, lines 52 – Col. 12 lines 44)

Although applicant discusses extensively the distinctions between Freeman and the instant application, he does not discuss the similarities. Prior to the amendment, Freeman's disclosure read on the limitations presented by applicant, including the notions of clustering, underwriting a portion of the groups, and statistical inference, each described in more detail above. Applicant's amendment are anticipated by the new reference and remain rejected.

With regard to Claims 2,12,22, Freeman teaches the method, system, and computer comprising:

determining if the variable type is continuous or categorical.
(Col. 12, line 35 – 41; Col. 12, line 59 – 65)

Art Unit: 3624

With regard to Claim 3,13,23, Freeman teaches the method, system, and computer comprising:

computing an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables, wherein the at least two identified descriptive attribute variables include at least one of a continuous variable type and a categorical variable type; and (Col. 8 line 45 – Col. 9 line 11)

storing in the database the average value for each of all combinations of the at least two identified descriptive attribute variables. (Col. 8 line 45 – Col. 9 line 11)

With regard to Claim 4,14,24, Freeman does not teach the method, system or computer:

wherein said step of calculating a value of a response variable further comprises the steps of calculating an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables according to

$$Y(r) \text{ Average} = \text{sum}(Y(x1 = a \text{ and } x2 = b)) / \text{count}(x1 = a \text{ and } x2 = b)$$

where $x1$ is a set of categorical variables and $x2$ is a set of continuous variables, and where "a" is a set of criteria for segmenting " $x1$ " and "b" is a set of criteria for segmenting " $x2$ ".

However as mentioned in the previous office action, the formulas presented above represent an average value calculation, and in the previous office action, the examiner observed this to be old and well known. The amended claims give more detail relating to the descriptive attribute variables, but the primary calculations is unchanged.

MPEP § 2144.03(C) states, in respect to an Examiner's use of Official Notice:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b).

The same section continues:

If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant

Art Unit: 3624

either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate.

Applicant has not stated why the noticed facts in Claim 4 are not considered common knowledge. Rather applicant simply states that he traverses. The Examiner is now obligated to consider as admitted prior art, the elements of Claims 4, comprising:

$$Y(r) \text{ Average} = \text{sum}(Y(x1 = a \text{ and } x2 = b)) / \text{count}(x1 = a \text{ and } x2 = b)$$

where x1 is a set of categorical variables and x2 is a set of continuous variables, and where "a" is a set of criteria for segmenting "x1" and "b" is a set of criteria for segmenting "x2".

With regard to Claim 5,15,25 Freeman teaches the method, system, and computer comprising:

computing an average for a response variable for all combinations of identified descriptive attribute variables, and levels of the identified descriptive attribute variables. (Col. 8 line 45 – Col. 9 line 11)

With regard to Claim 6, Freeman does not expressly teach the method, system, and computer comprising:

computing an expected value of the response variable from a weighted value of occurrence for the separate attribute variables.

However, Thiesson teaches weighted values at (Col. 7, line 50 – Col. 8, line 6). It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to combine the teachings of Freeman, relating to clustering within asset groups for statistical measuring, with the teachings of Thiesson relating to weighted value calculations as they are applied to measuring values of response variables. The motivation for such a combination is to apply reliable statistical analysis in a way that allows macro-level decisions be applied from a process that occurs on a micro-level to an individual statistic.

Art Unit: 3624

With regard to Claim 7, Freeman does not teach the method, system or computer:

wherein said step of computing an expected value of the response variable further comprising the step of computing expected value according to:

$$Y(r) \text{ expected} = [\text{sum}(Y(x1=a)) * \text{count}(x1=a) = \text{sum}(Y(x2=b)) * \text{count}(x2=b)] / [\text{count}(x1=a)*\text{count}(x2=b)]$$

where "x1" is a set of categorical variables and "x2" is a set of continuous variables, and where "a" is a set of criteria for segmenting "x1" and "b" is a set of criteria for segmenting "x2".

However as mentioned in the previous office action, the formulas presented above represent a probabilistic average calculation, and in the previous office action, the examiner observed this to be old and well known. The amended claims give more detail relating to the response variables, but the primary calculations is unchanged. As with Claim 4, Applicant has not stated why the noticed facts in Claim 7 are not considered common knowledge. Rather applicant simply states that he traverses. The Examiner is now obligated to consider as admitted prior art, the elements of Claims 7, comprising:

$$\underline{Y(r) \text{ expected} = [\text{sum}(Y(x1=a)) * \text{count}(x1=a) = \text{sum}(Y(x2=b)) * \text{count}(x2=b)] / [\text{count}(x1=a)*\text{count}(x2=b)]}$$

where "x1" is a set of categorical variables and "x2" is a set of continuous variables, and where "a" is a set of criteria for segmenting "x1" and "b" is a set of criteria for segmenting "x2".

With regard to Claim 8,18,28 Freeman teaches the method, system and computer comprising:

computing a deviation of the response variable from the expected value of the response variable, where the deviation is the average value of the response variable minus the expected value. (Col. 3, lines 23-42)

With regard to Claim 9,19,29 Freeman teaches the method, system and computer comprising:

displaying the groupings further comprises the step of displaying a graphical embodiment of the response variables including the expected values of the response variables and the deviations. (Figures 5, 6, 9)

With regard to Claims 10,20,30, Freeman does not teach the method, system or computer comprising:

displaying a graphical embodiment further comprises the step of displaying a multi-dimensional visualization of the response variables and expected values of the response variables.

However as mentioned in the previous office action, the formulas presented above represent a simple 3D displaying feature, and in the previous office action, the examiner observed this to be old and well known. As with Claims 4 and 7, Applicant has not stated why the noticed facts in Claim 7 are not considered common knowledge. Rather applicant simply states that he traverses. The Examiner is now obligated to consider as admitted prior art, the elements of Claims 10 listed above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

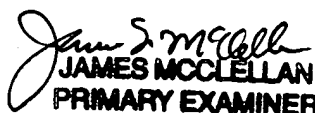
Art Unit: 3624

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Alpert whose telephone number is (571) 272-6738. The examiner can normally be reached on M-F 9:30-6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (571) 272-6747. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Alpert
August 8, 2005


JAMES MCCLELLAN
PRIMARY EXAMINER